

## **ABSTRACT OF THE DISCLOSURE**

An integral gasketed filtration cassette structure of a type comprising a filtration cassette fully or partially overcoated by a gasket layer, forming a fluid-tight seal between the filtration cassette and the filtration cassette holder to which the filtration cassette is to be affixed. The filtration cassette comprises filter sheets arranged in a multilaminate, peripherally bonded array, wherein the filter sheets alternate with permeate and retentate sheets. The gasket layer comprises an elastomeric material with suitable hardness and temperature resistance for sealing, such as silicone, ethylenepropylenedienemonomer (EPDM), viton, polyurethane, polypropylene, polyethylene, polyvinylchloride, polyester, epoxy, ethylvinylacetate, bunnas, and styrene butadiene. The filtration cassettes and filter of the invention may be advantageously employed for dewatering of aqueous biomass suspensions, desalting of proteins, removal of secreted metabolites from cellular suspensions, and the like.